

**REMARKS**

Applicant respectfully asks for reconsideration of both this application and the Office Action dated July 28, 2006. A response to this Office Action was due by October 28, 2006. Accordingly, Applicant is submitting a Petition for a three month extension of time with this Amendment. The Commissioner is authorized to charge the associated Petition fee of \$1020, together with any other fees that may be necessary for the entry and consideration of this Amendment and to maintain the pendency of this application, including any fees under 37 C.F.R. §1.16 or §1.17, to Deposit Account No. 19-0733. The period for responding to the outstanding Office Action is thus extended up to and through January 29, 2007 (January 28, 2007, being a Sunday). Please consider this Amendment as timely filed.

**I. Status Of Claims**

Claims 1-14 were pending in this application. Claim 14 is canceled without prejudice or disclaimer. Further, Applicant has amended claim 5 to depend from claim 4, and amended claims 11-13 to place these claims in still better form.

**II. Response To Outstanding Rejections**

**A. The Rejection Of Claim 14 Under 35 U.S.C. §101 Is Moot**

In the Office Action, the Examiner rejected claim 14 under 35 U.S.C. §101 for purportedly being direction to non-statutory subject matter. Applicant respectfully traverses this rejection, but courteously urges that it is moot. As noted above, claim 14 is canceled herein without prejudice or disclaimer.

**B. Claims 1-10 Are Patentably Distinguished From The Barbier et al. Patent**

Next, the Examiner rejected each of claims 1-14 as being anticipated under 35 U.S.C. §102(b) by U.S. Patent No. 5,574,388 to Barbier et al. Applicants respectfully traverse this rejection as applied to claims 1-10, and courteously ask for its reconsideration. For anticipation to exist, each and every feature of a claim must be shown in a single reference, and the reference must show these features arranged in the same manner as recited in the claim. *See The Manual of Patent Examining Procedure* § 2131. As will be demonstrated below, the rejection based upon the Barbier et al. patent fails to meet the requirements for anticipation with respect to Applicants' claims 1-10.

Each of claims 1-7 recite a first reconfigurable interconnect stage, a second reconfigurable interconnect stage configurable to receive outputs from the first reconfigurable interconnect stage, and a third reconfigurable interconnect stage configurable to receive outputs from the second reconfigurable interconnect stage and provide outputs back to the second reconfigurable interconnect stage. Claims 8-10 then similarly recite a first reconfigurable interconnect stage, a second reconfigurable interconnect stage having inputs coupled to outputs of the first reconfigurable interconnect stage, and a third reconfigurable interconnect stage having inputs coupled to outputs of the second reconfigurable interconnect stage and outputs coupled to inputs of the second reconfigurable interconnect stage. The Examiner has not shown where these features are found in the Barbier et al. patent.

In making these rejections, the Examiner identified (i) the inter-LE X-bar network 104 as corresponding to the first reconfigurable interconnect stage, (ii) the inter-FPGA X-bar network 114b as corresponding to a second reconfigurable interconnect stage configurable to receive

outputs from the first reconfigurable interconnect stage (or having inputs coupled to outputs of the first reconfigurable interconnect stage), and (iii) the inter-FPGA X-bar network 114a as corresponding to a third reconfigurable interconnect stage configurable to receive outputs from the second reconfigurable interconnect stage and provide outputs back to the second reconfigurable interconnect stage (or having inputs coupled to outputs of the second reconfigurable interconnect stage and outputs coupled to inputs of the second reconfigurable interconnect stage).

Applicant respectfully point out, however, that the inter-FPGA X-bar network 114b cannot provide outputs to the inter-FPGA X-bar network 114a. While the output lines of inter-FPGA X-bar network 114b *appears* to be connected to the input lines of inter-FPGA X-bar network 114a through I/O pins 113 in Figure 3, the FPGA X-bar network 114b cannot provide its outputs directly to the inter-FPGA X-bar network 114a. The I/O pins 113 route data into and out of the system 100. More particularly, when data is received from outside of the system 100 (marked as "Emulation I/O To/From FPGA" in Figure 3), the I/O pins 113 switch to route the incoming data to the inter-FPGA X-bar network 114a. When the inter-FPGA X-bar network 114b has output to be sent outside of the system 100, the I/O pins 113 switch back to route the outgoing data from the inter-FPGA X-bar network 114b to outside of the system. The I/O pins 113 do not, however, bridge the output of the inter-FPGA X-bar network 114b to the input of the inter-FPGA X-bar network 114a.

Accordingly, Applicant submits that the Examiner has not shown where the Barbier et al. patent anticipates the features of the invention recited in claims 1-10. Applicants therefore ask

that the rejection of these claims over the Barbier et al. patent be withdrawn.

**C. Claims 11-13 Also Are Patentably Distinguished From The Barbier et al. Patent**

Applicants also respectfully traverse the rejection of claims 11-13 as being anticipated under 35 U.S.C. §102(b) by U.S. Patent No. 5,574,388 to Barbier et al., and courteously ask for its reconsideration as well. Again, for anticipation to exist, each and every feature of a claim must be shown in a single reference, and the reference must show these features arranged in the same manner as recited in the claim. *See The Manual of Patent Examining Procedure* § 2131. As will be demonstrated below, the rejection based upon the Barbier et al. patent fails to meet the requirements for anticipation with respect to Applicants' claims 10-13.

Each of claims 11-13 routing the output from a simulation processor through a first reconfigurable interconnect stage, subsequently routing the output through a second reconfigurable interconnect stage, and then routing the output back through the first reconfigurable interconnect stage. Applicant courteously submits that the Examiner has not shown where these features are found in the Barbier et al. patent. As discussed in detail above, the inter-FPGA X-bar network 114b cannot provide outputs directly to the inter-FPGA X-bar network 114a. Applicant therefore submits that the Examiner has not shown where the Barbier et al. patent anticipates the features of the invention recited in claims 11-13, and respectfully asks that the rejection of claims 11-13 be withdrawn as well.

**D. The Rejection Of Claim 14 Under 35 U.S.C. §102(b) Is Moot**

Lastly, Applicant respectfully points out that the rejection under 35 U.S.C. §102(b) over Barbier et al., as applied to claim 14, is now moot. As previously noted, Applicant is canceling

claim 14 herein without prejudice or disclaimer.

### **III. Conclusion**

In view of the above amendments and remarks, Applicants respectfully submit that all of the claims are allowable, and that this application is therefore in condition for allowance.

Favorable action in this regard is courteously requested at the Examiner's earliest convenience.

Respectfully submitted,

By: s/Thomas L. Evans/s  
Thomas L. Evans, Reg. No. 35,805

BANNER & WITCOFF, LTD.  
1001 G Street, N.W., 11<sup>th</sup> Floor  
Washington, D.C. 20001-4597  
Telephone: (202) 824-3000  
Facsimile: (202) 824-3001

Date: January 29, 2007